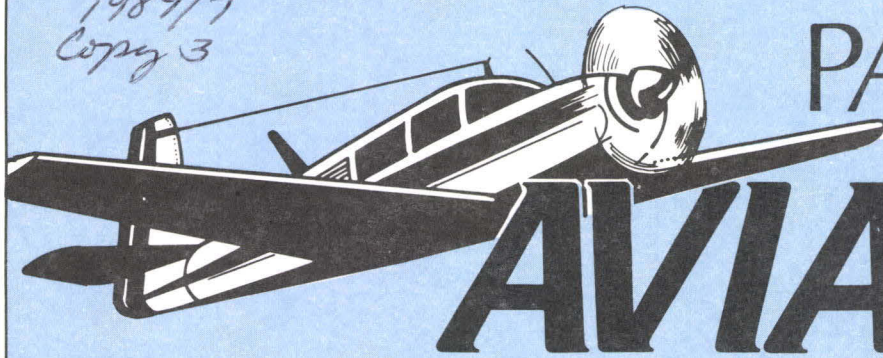


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# PALMETTO

# AVIATION

Volume 41, Number 7

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July, 1989

## Aiken Breaks Ground for Airport Expansions

Aiken County Airport Commissioners and Aiken City officials turned out recently to break ground for that airports apron and taxiway expansion.

Ira E. "Bud" Coward, chairman of the Airport Commission, announced that this expansion project would be a great asset in securing economic development to Aiken.

The expansion project costing \$378,000 was funded with the aid of an FAA grant and with five percent coming from each the state Aeronautics Commission and local sponsors.

Coward said that Aiken needed to upgrade its air facility and was responding to the needs of the community.

"Aiken surveyed the airport users and found that apron reconstruction was the first item on their list," said Coward on that rain-

**Aiken County officials Bill Townsend (l), Dick Hawkins, Bud Coward and J.E. Finley (r) discuss the airport's future expansion plans.**



threatening June 5.

Coward listed the major renovations to the airport, "in 1984 the primary runway was renovated for \$600,000; 1985 cracked sealing was repaired on runway 18/36 for \$37,000 and in 1986 a parallel taxiway was constructed for \$575,000."

In future projects, Aiken officials would like to see visual approach path indicators, strobe lights and a good visual approach

added to their airport.

"We also would like to negotiate with a corporate hangar to allow a different level of service," added Coward, "We'd like to see the first of many corporations to base their aircraft here."

"There are many exciting projects going on here and we need to wave our flags whenever we can to make Aiken the best airport possible," concluded the Airport chairman.

## Reduce your airport's maintenance costs:

### Seal those cracks

by H. Fred Waller, P.E.  
A Professional Opinion

Asphalt maintenance is a problem all airports have at one time or another. In an effort to insure the most current technical

information possible, Fred Waller of the Asphalt Institute was asked to submit ways to improve the life of asphalt.

Cracks in an asphalt pavement are sealed for two primary reasons - (1) to prevent the intrusion of in-

compressible materials, i.e., sand, soil and other surface accumulations, and, (2) to prevent the intrusion of water which can damage the underlying pavement structure. When cracks are left un-

*See Asphalt cracks, Page 6*

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**PALMETTO AVIATION** is an official publication of the South Carolina Aeronautics Commission. It is designed to inform members of the aviation community, and others interested in aviation, of local developments in aviation and aviation facilities, and to keep readers abreast of national and international trends in aviation.

The Aeronautics Commission is a state agency created in 1935 by the South Carolina General Assembly to foster and promote air commerce in the state.

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## SCAC Approves Airport Improvements

The following airports received funding for projects from the South Carolina Aeronautics Commission:

• **Allendale County Hospital** -- \$12,150 for the construction of a helicopter landing pad; • **Pageland Airport** -- \$10,790 for the installation of nondirectional radio beacons; • **Dorchester County Airport** -- \$12,500 for the installation of a nondirectional beacon; • **Aiken Municipal Airport** -- \$18,871 for reconstruction of taxiway, and relocation of MRL; • **Lee County Airport** -- \$21,072 for engineering services to design a runway; a 36 inch rotating beacon and pathway approach indicator.

The Aiken Municipal Airport project was funded with five percent local and state money and 90 percent with FAA funds. The remaining projects were 50 percent state and 50 percent local sponsor sources.

## Donaldson Announces New FBO

A Utah-based helicopter company has won the bid to be a fixed based operator at Donaldson Center in Greenville.

The announcement came after as many as seven companies competed for the FBO at the air center.

The new FBO, Rocky Mountain Helicopters of Provo, Utah, is the nation's largest air ambulance supplier, according to the company.

Rocky Mountain Helicopters plans to move its operators into the air park Sept. 1, said company Vice President Russ Spray.

Last summer, city and county officials issued \$600,000 in bonds to build 18 hangars at the airport and Rocky Mountain will begin leasing those hangars as soon as they are completed. The new hangars should be able to house as many as 42 additional aircraft.

According to Spray, the company will use Donaldson Center as a maintenance facility for its medical fleet, and has plans to modify the interiors of airplanes and helicopters for air ambulance use. Additionally, the company plans to begin a charter service as the air park grows.

The company anticipates hiring

about 10 employees initially, adding more as needed.

"Our goal in Greenville is operate a fixed-based service and service facility for an expanding medical fleet of helicopters and airplanes that are rapidly growing in numbers across the East Coast," said Spray in an interview with the Greenville News.

Rocky Mountain also has plans to improve the airport in general with a 24-hours weather observation system, and perhaps a manned air traffic control tower. These improvements may very well lure a major air cargo company into Donaldson Center which is the aspiration of airport officials.

"I think we've found an excellent operator for the facilities," said

Donaldson Airport Manager John Ferguson, "It's going to complement the airport very well. I think it's going to be something very good for Greenville."

Rocky Mountain was established in 1972, according to Spray, and supplies air ambulances to state institutions and hospitals across the country with a regional office in Atlanta. One such hospital program operates in Columbia.

South Carolina Aeronautics Commission Offices are at Columbia Metropolitan Airport. Mailing Address: Post Office Drawer 280068, Columbia, South Carolina, 29228. Phone: (803) 739-5400.



## Corporate Airport at Pelion has Full-time FBO

John Archer of Archer Aviation, Inc. is now Corporate Airport's first full-time FBO.

The FBO opened May 1 with full-time service beginning June.

Archer said he is offering 100ll aviation fuel, aircraft maintenance, charter services, aircraft sales, and flight instruction. Archer not only has his FAA CFI, but also his AI.

## Shawfest: *Enjoyable* Was the Word

The best weather and the best entertainment were on hand to entice more than 50,000 people to Shaw Air Force Base on June 10.

In addition to seeing static displays of the B-1 Bomber, crowds listened to country, pop and soul music, bought souvenirs and just enjoyed the day.

"We've been blessed today, I think my boss have sold his soul to make this the best day possible," said Senior Airman Ed Wehrenberg, spokesman for Shawfest, the base's community awareness day.

"The whole base has to pull together for this event, from civil engineering, putting up the port-a-lets, to equipment maintenance squad, constructing the stands," Wehrenberg said complimenting the people who worked hard to organize the event.

Shawfest is held annually in an effort to promote community awareness for the base, to provide good quality family entertainment and to recruit young men and women into the Air Force.

"Shawfest is not a thing to make money, it's to let them know what we're doing," he said.

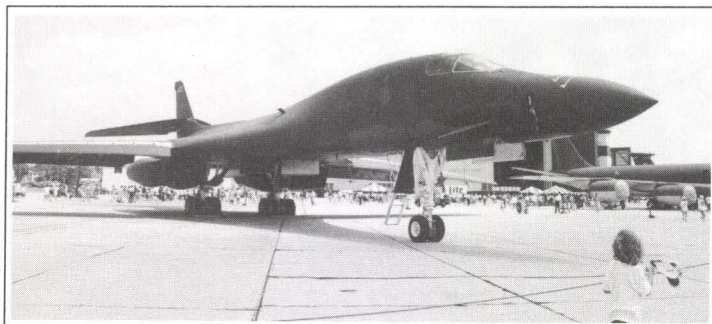
This year, Shawfest brought more than 50,000 people into the

base's gates, down a few thousand from last year's record-setting attendance of 60,000 plus. The difference in attendance figures was attributed to the lack of a well-known military air show, such as the Thunderbirds to this year's event.

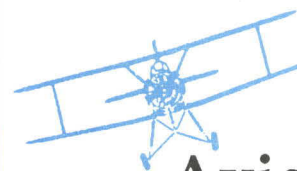
"People will come to see them even if the weather is bad," Wehrenberg said. "Oh, we'd love to have the Thunderbirds every year, but they just can't schedule us that often."

In every one's estimation this year's Shawfest was a big success. Great weather, great entertainment and great fun.

"We had a lot of happy folks in here at Shawfest, even though no Thunderbirds," said the Shawfest spokesman.



Shawfest was pure family entertainment featuring various military static displays, including the B-1 Bomber (l).



## Aviation Calendar

### July 12-16

Lawyer-Pilots Association  
The Grand Hotel  
Mackinac Island, Mich.

### July 16

Breakfast Club  
Shaw Field (Special)

### July 23

Breakfast Club  
FSS Tour  
White's Aviation  
Anderson Airport

### August 6

Breakfast Club  
Marion (NC) Airport

### August 20

Breakfast Club  
Greenwood County  
Airport

### September 8, 9, 10

Breakfast Club Weekend  
Jekyll Island, GA  
Holiday Inn  
(912) 635-3311

### October 1

Breakfast Club  
Walterboro Airport

### October 13, 14 & 15

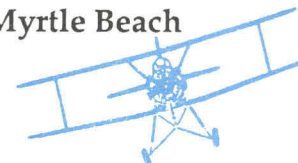
EAA Fly-In  
Breakfast Club Sunday  
Woodward Field  
Camden, SC

### Oct. 29

Breakfast Club  
Election of Officers  
Orangeburg Airport

### November 14-18

1989 S.C.  
Airports Conference  
Kingston Plantation  
Radisson Resort Hotel  
Myrtle Beach





# Famous B-29 Superfortress Flies to S.C.

Hundreds of enthusiastic people greeted "FiFi" when she arrived in the upstate recently.

"FiFi", the B-29 Superfortress, held court at the Greenville downtown Airport with her well-trained volunteer crew and other war veterans.

During her stay, Jim Stewart, a member of the Confederate Air Force and an air traffic controller at Greer, said, "We had about 1000 people waiting for her when she came on June 12...and when she departed on the 19th about 11 a.m. had about 1000 people to see us off, too."

Stewart, whose efforts are largely responsible for the upstate tour, added, "We had about 5500 adults (to visit FiFi) and we did not keep track of the all the kids, so a good estimate would have to about 10,000 people counting the children."

"I belong to the particular group that operates the B-24 and the B-29... I'm also one of the pilots, a B-24 pilot," said the Greer resident.

Not only was the B-29 scheduled to arrive but also a B-24 which had some maintenance problems so it was re-routed to Dallas.

The crowds who did see the B-29 were suitably impressed with the condition of FiFi and her working staff.

One staff member, Bob Freeman, a World War II vet who flew B-29s like FiFi, said, "it takes six

**"FiFi", a B-29 Superfortress, arrived at Greenville Downtown Airport amid cheers and well-wishers.**



people to fly FiFi with crew members rotating positions. We, the CAF is continually and constantly recruiting and training crews."

Once inside the plane you know why the CAF is always looking for crew members. The flight deck of the B-29 houses the pilot, co-pilot, flight engineer, navigator, bombardier and radio man.

Bill Holgate, a member of the crew pointed out that the B-29 was the first airplane designed to use a full-time flight engineer. The plane itself is a remarkable piece of aeronautical work which took mainte-

nance and repair crews over three years and \$1 million to make air-worthy. Of the 3,970 B-29s built for war duty by May, 1946, only 2 remain in flyable condition today according to CAF.

Although FiFi and other B-29s were designed to fly at altitudes of up to 33,000 ft., FiFi was flown at altitudes much lower than that for an extra safety measure.

Historically, Enola Gay the B-29 which dropped the first atomic bomb is the most famous. But all 29's share in that awesome historic event even FiFi. Since she is a fully operational B-29, she donned Enola Gay's markings and dropped an exact replica of the "Little Boy" bomb for a television production.

The story of FiFi began when the CAF started to collect one example of each type American WWII aircraft which included a Boeing B-29 Superfortress.

As word of the search for a B-29 travelled, CAF headquarters heard rumors about a desert area in California with many aircraft resembling B-29s lying in disrepair.

The rumors turnout to be true and within months SN44-62070 was chosen and, finally, was the property of the CAF.

SN44-62070 was dubbed "FiFi" ready for her next and most important mission — to remind everyone of the United States' role in the history of the world and to teach the lesson of freedom and liberty.



**Veterans (above) recall their tour-of-duty, and young boys relive history as they visit the B-29 flying museum.**





# The Civil Air Patrol

## Gantt Named CAP Group 1 Commander

Civil Air Patrol Capt. Terry L. Gantt of Greer has been named Group 1 commander by the South Carolina Wing of Civil Air Patrol.

Group 1, which includes five CAP squadrons, covers Oconee, Pickens, Anderson, Greenville, Spartanburg, Cherokee, Union, York, and Chester counties. The South Carolina Wing is composed of 22 squadrons and four groups.

Gantt succeeds Lt. Col. Bill Prevost of Anderson, who remains

on Group 1 staff as special projects officer.

The Greenville native, Gantt is employed by Fluor Daniel as an engineering design manager. He is a graduate of Greenville Technical College.

He has served as deputy commander for seniors in Squadron 44 in Concord, California, and as operations officer and emergency services officer for both the Concord and the Greenville, S.C.

squadrons.

The U.S. Army veteran currently serves the Boys Home of the South as chairman of the board of directors and as air show chairman.

Composed of approximately 73,000 members nationwide, CAP provides volunteer search-and-rescue and disaster-relief services for local communities, aviation education for the public, and a cadet-training program for 30,000 teenage cadets.



## National Activities Offered: Opening Doors Through Learning

The Civil Air Patrol offers many educational opportunities for cadets and encourages them to participate in as many as possible.

The following is a list which describes the activity, dates and who from our state will be attending. If you are interested in knowing more about the activity, please call your local CAP office.

**Cadet Officer School (COS)** - Gunter AFS, Alabama, July 25-August 5; attending Christopher Hyst of Greenville, S.C.

**COS** is a 10-day course designed to increase the effectiveness of cadet officers. Curriculum includes psychology of leadership, problem-solving techniques, public speaking, physical fitness, orientation trips, field exercises and Project Warrior presentations. Instruction is divided between lecture and seminar.

**Air Training Command Familiarization Course (ATC)** - Columbus, AFB, MS, July 9-16; attending Will Clark of York.

**ATC** is a one-week course conducted by the Air Force and Air Force Reserve personnel, providing familiarization training at Air Training Command bases. This course is designed to stimulate an interest in flying and the Air Force. It includes briefings on the missions and operation of a flying training wing, academics, visits to aircraft maintenance hangar, propulsion branch, and parachute and aero repair shops, air search and rescue indoctrination and psychological training. Courses are held at Laughlin, AFB, Texas, Columbia, Miss., and Mather AFB, Calif.

**Pararescue Orientation Course (PJOC)** - Kirtland AFB, NM, July 22-29, attending Steven Senf and Michael Anderson, both of Lexington, S.C. Fort Knox, KY, August 5-12, attending Kiri Pitts, Lexington, S.C. George Washington National Forest, VA, August 12-19, attending Edward Rivers of Lexington and David Hobley of West Columbia.

**PJOC** allows CAP cadets to participate in various facets of Air Force pararescue training. Also included is course work on land navigation, survival techniques, and rappelling.

**Blue Beret Activity** - Oshkosh, WI, July 21 to August 5, attending David Hobley of West Columbia. This is a two week activity held in conjunction with the Experimental Aircraft Association's annual airshow. The activity teaches ground search procedures, emergency services, first aid and flight operations.

### CAP Calendar

July 9 - Commanders Call  
July 15 - CAP/FAA check  
pilot standardization  
July 16 - Wing Workday  
July 23-29 - Encampment  
Charleston AFB

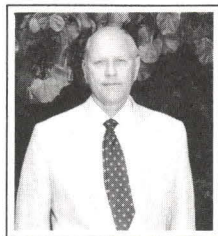


## Asphalt Maintenance: An aid to Rely On

Continued from Page 1

When cracks are left unsealed, pavement deterioration may be greatly accelerated and a minor problem may rapidly degenerate into a major problem requiring more costly maintenance treatment.

The first step is identification if the type and cause of cracking. There are four major types of cracking with each caused by a different reason. The four crack types are alligator, shrinkage, reflection, and slippage. Crack sealing, per se, may not be the appropriate maintenance procedure for a permanent solution to the problem of alligator and slippage cracks. Alligator cracking is usually the result of inadequate structural design, improper consolidation of underlying pavement courses (base and/or subgrade) or poor drainage which permits the subgrade to become saturated and diminish its strength.



Waller

though sealing may temporarily help, these two types require more extensive and complex maintenance procedures.

In the case of reflection and shrinkage cracks, sealing can be a very effective maintenance technique. When the cracks are less than 1/8-inch in width, some type of emulsion slurry or a light grade of emulsified asphalt mixed with fine sand can be squeegeed over the small cracks to prevent the intrusion of moisture.

Cracks larger than 1/8-inch should be cleaned by routing, wire brushing or blowing with compressed air. After all foreign material has been removed from the

Slippage cracks are the result of one pavement course moving on top of another pavement course. Al-

though sealing may temporarily help, these two types require more extensive and complex maintenance procedures.

crack, a high quality bituminous sealer should be used to fill the cavity, being careful not to over fill. The bituminous crack sealer should be a material meeting A.S.T.M. (American Society for Testing and Materials) standards and may be modified by the addition of crumb rubber, latex or a polymer. In any case, the sealing material should be compatible with the pavement being sealed, should quickly solidify, be rapid curing and non-tracking, have sufficient flexibility and extensibility and remain pliable for a period of several years.

When cracks are properly sealed with high quality materials, the life of the pavement can be significantly extended and future maintenance costs reduced.

**H. Fred Waller is a senior district engineer with The Asphalt Institute, which specializes in laboratory testing of asphalt and related materials.**

## Southeast Aeronca Fly-In a Success of Sorts

Although organizers expected nearly 150 aircraft to attend the first Southeastern Aeronca Fly-In, they weren't nearly so disappointed when only one-tenth of that number showed up. They were just happy nothing was damaged in the line of massive thunderstorms that raged through the state June 16.

"Oh, yeah, we're a little disappointed," said Xen Motsinger, co-chairman of the Aeronca Fly-In, "but we couldn't plan on the weather doing this."

"About 12 planes came in on Friday night," said Bill Hawkins, Woodward Field's FBO. "We had planes in excess of 150 transients from 7 states by Sunday."

"When we heard about the line of storms coming, we tried to

do everything we could to get them in the hangars. If we had been anywhere else we wouldn't have had nearly enough hangar space, and I know we would have lost some," he said.

Aeroncas from all over the southeast were invited to participate in the regional fly-in which featured "Carolina barbecue" and awards for the best aeroncas.

Even though some people seemed disappointed that so few aircraft arrived on Saturday, most were pleased at the quality and type of aircraft that did participate.

One 1941 Aeronca TC was especially striking. Painted navy blue and orange, the Tadem Trainer was built for the civilian pilot training program, according to owner Jim Hammond. The Yellow Springs,

Ohio, resident was just lucky to have arrived at Camden before the storms hit. "If we had stopped half way like we planned, we never would have made it," he said.

Another aircraft was Lou Wagner's Aeronca L16. The silver-gray aircraft featured nose art of Smiling Jack, a vintage cartoon character during the forties.

"Fly-Ins are great," said Wagner "but the one who should get a medal for this one is Bill Hawkins, who single-handedly got this airport in shape literally seconds before the storm."

So all in all, the first Southeast Aeronca Fly-In was a success of sorts: a successful display of organization, cooperation and dedication to aviation.



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# FYI From the FAA

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## *Minimum Equipment: How Much is Enough?*

*The following article is excerpted from an FAA publication, Aviation News, which bears repeating.*

Which items of equipment could be inoperative without rendering your aircraft unairworthy? Until recently the answer was, in a word NONE. Existing regulations led to a policy which made it illegal to fly an airplane with any piece of equipment whatsoever inoperative—be it a blown light bulb, a burned out cigarette lighter, etc.

The rationale for this policy was self-evident. Given the close proximity of equipment and instrument installations in a cockpit, even a luxury item which failed could affect the circuitry of essential equipment—in the absence of an evaluation of the malfunction by a professionally qualified person.

However, considerable studies of flight experience have led FAA to the conclusion that in view of the very considerable redundancy designed into modern aircraft, inoperability of some installed components, under certain conditions, would not degrade safety.

Consequently, the concept of the Master Minimum Equipment List (MMEL) was developed, with participation by the aviation industry, to increase aircraft utilization for commercial aviation and to provide relief for pilots and operators. MMEL's were developed for all FAA type certificated multi-engine airplanes in general usage. A generic single engine airplane MMEL was developed which is applicable to most single engine airplanes and helicopters. The FAA-approved MMEL specified those items of equipment which in certain models and/or categories of aircraft may be inoperative un-

der certain conditions. The Master List is the basis for developing a Minimum Equipment List (MEL) for a particular individual's aircraft, taking into consideration the equipment currently installed and the purpose for which the aircraft is to be used.

It is important to understand that an MEL or MMEL, refers only to potentially acceptable inoperative equipment: it is not a list of required equipment.

The pilot is responsible for assuring that all required equipment is on board and operable prior to departure. Furthermore, all provisions of Aircraft Flight Manual Limitations, Emergency Procedures, or Airworthiness Directives, take precedence over the MEL. The final determination as to whether a flight may be made safely is always up to the pilot who ultimately returns the aircraft to service. MEL conditions and/or limitations do not relieve him of that responsibility.

The initial rulemaking on this subject authorized MEL's for various types of multi-engine, turbine-powered and air carrier aircraft. The latest rule changes, effective December 13, 1988, gives an option to operate with or without the MEL to general aviation pilots of small rotorcraft., nonturbine-powered small airplanes, gliders and light-than-air aircraft for which a master MEL has been developed. Now if they wish to fly with certain equipment inoperative they may either apply their individual FAA-approved MEL, or they may seek authorization under a pilot decision-making sequence which does not require formal FAA approval.

The new regulations which

provide for alternate means of compliance in general aviation are contained in Sections 43.11(b); 91.30(a)(b)(c)(d); and 91.165(a)(b)(c)(d) of the FAR.

The optional pilot decision-making sequence involves the pilot consulting the aircraft's operating equipment list of Kinds of Operations Equipment List: the type certificate; all current airworthiness directives; all pertinent airworthiness regulations. The pilot may be required to consult with qualified maintenance personnel as regards type certification details or compliance with airworthiness directives and, in some case, for deactivation of equipment. The pilot must assure that all inoperative equipment is properly deactivated and placarded, and appropriate maintenance entries are logged.

However, this sequence of activities is usually less time consuming than the development of an MEL, which requires initially a consultation at the local FAA General Aviation or Flight Standards District Office, followed by a study of the appropriate Master MEL, completion of the required paperwork, and adoption of certain maintenance and crew procedures. Finally, a letter of authorization for the MEL must be issued by the District Office. The period of validity may be limited and, under some conditions, the letter may be recalled.

There are two important facts to remember, If you sell the aircraft, the new owner must apply for a new MEL. Also, if a revision to the MEL is made by the operator, it must be approved by the FAA and another letter of authorization issued.





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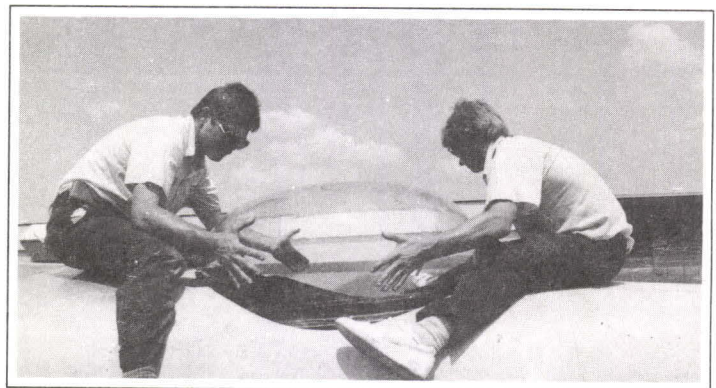
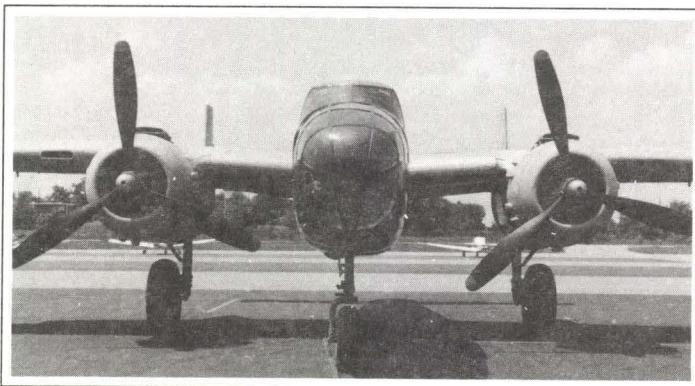
## **Inside Palmetto Aviation**

- Minimum Equipment: How much is enough
- Shawfest & Fly-Ins are fun-Ins
- Asphalt maintenance -- it pays off

... and much, much more!

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## **Once water-logged B-25, Now stands proud on sure-ground**



The trip from Lake Greenwood to Columbia Owens Downtown took 6 years, but this B-25 named "Skunkie" is back on the road again with the help of two very dedicated restorers, Mike Pegram and Frank Shumpert.

The B-25 was raised from the depths of Lake Greenwood in 1983, and still needs about two months of restoration until it's completed, according to Shumpert. The B-25 was rolled out recently before a fund-raising event to help pay for repairs. When ready, the aircraft may be displayed at Owens Field or the State Museum.

This publication is printed and distributed by the South Carolina Aeronautics Commission in the interest of aviation safety and to foster growth of responsible aviation in the state. The viewpoints expressed in articles credited to specific sources are presented as the viewpoints of those writers and do not necessarily reflect the opinion of the South Carolina Aeronautics Commission.